



Ground System Survivability Overview

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U.S. ARMY TANK AUTOMOTIVE RESEARCH, DEVELOPMENT AND ENGINEERING CENTER (TARDEC)

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GSS Vision & Mission

VISION

Demonstrate and be recognized as the Army ground vehicle survivability integration leaders

MISSION

Design for Occupant Centric Survivability via maturation & integration of technology

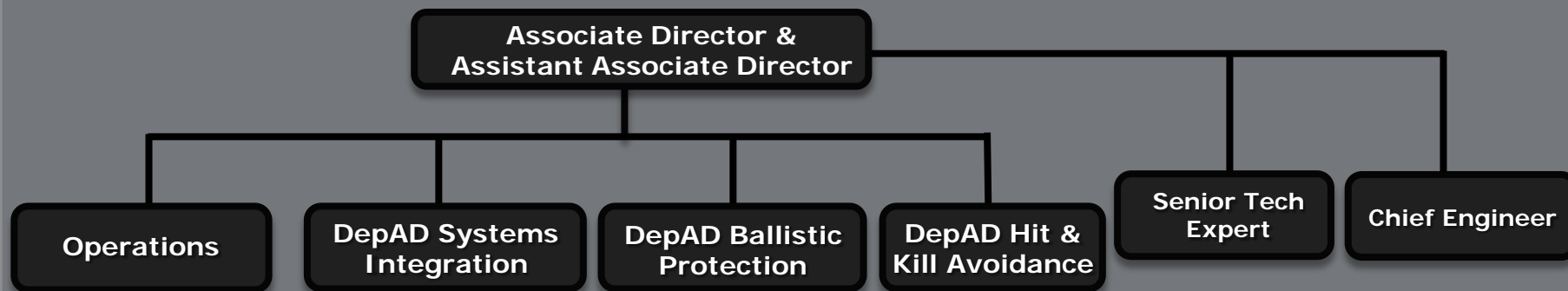


LEAD – INNOVATE - INTEGRATE – DELIVER !

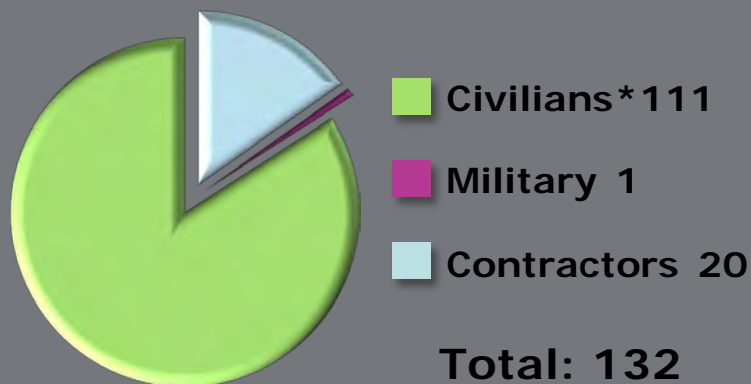


GSS

Organizational Structure & Personnel

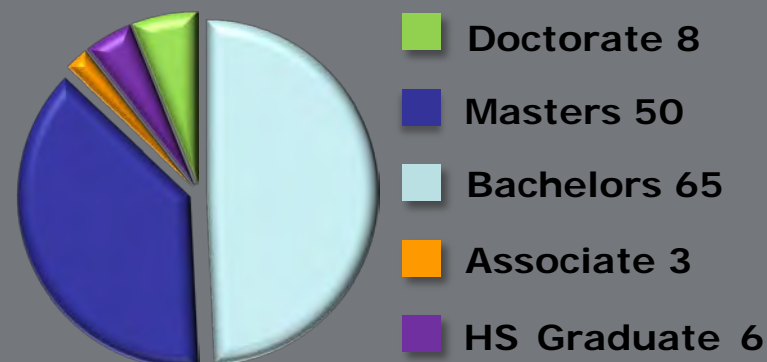


Total Workforce



*Includes permanent/term employees, local interns, STEPs, and local SCEPs (in a pay status).

Education



GSS has a proven, technically proficient workforce that meets mission requirements !

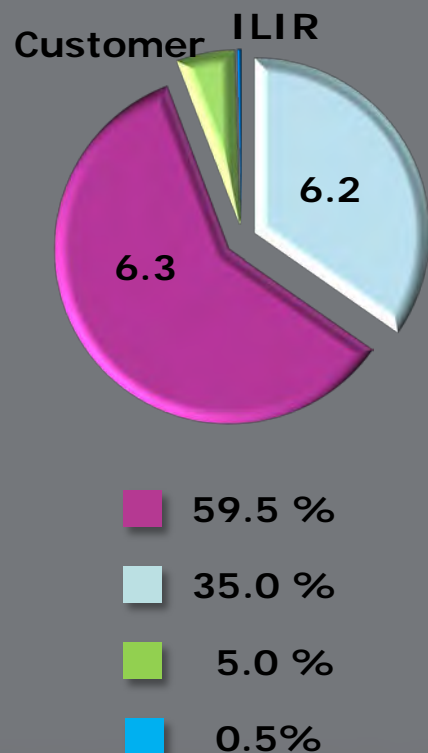


GSS

Financial Resources



RDT&E Funding



Appropriately Balanced Portfolio

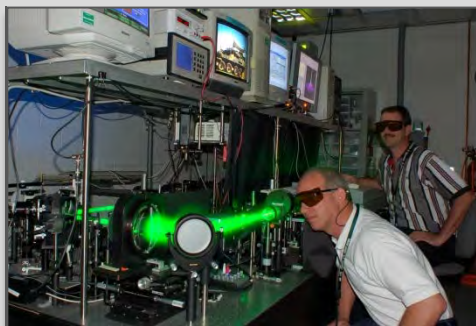


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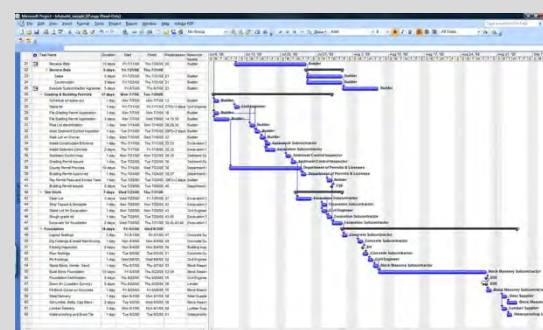


Key Capabilities

Full Life-Cycle Technical Support



Research/Technology Development

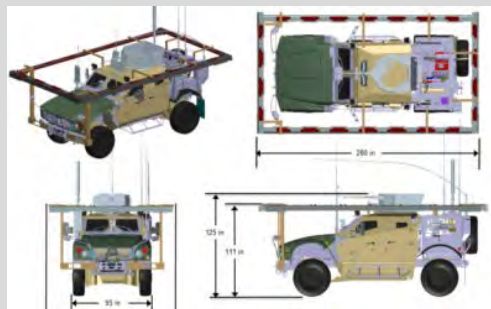


Program Management



Product Development

Integration



Production Support



Field Support



GSS is Part of the TARDEC Enterprise that Executes its Capabilities via an Integrated Team



GSS Core Competencies

Supporting Army Acquisition Decision-Making

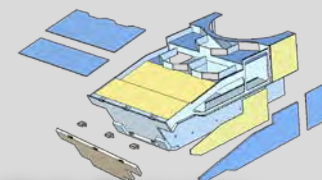
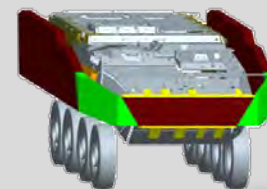
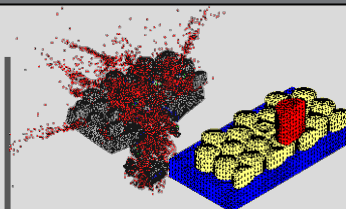


Integration Services:

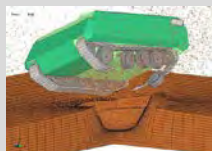
- *Hit Avoidance*
- *Ballistic Protection*
- *Kill Avoidance*
- *Optimization*



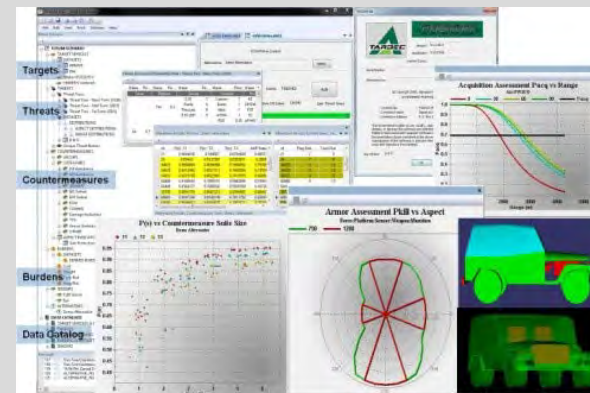
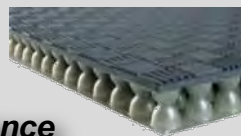
Hit Avoidance



Ballistic Protection



Kill Avoidance



Optimization

Demonstrated Technical Competency



Current Projects

Part of a Diverse Technology Portfolio

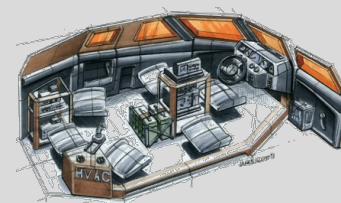


Kinetic Energy Active Protection System (KE-APS)

Architecture, Requirements, Maturation & Evaluation of Defensive-Aid Suites (ARMED)



Advanced Combat Vehicle Armor Development (ACVAD)



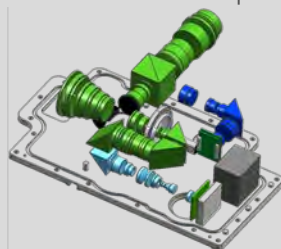
Occupant Centric Platform (OCP) - TECD



Common Automatic Fire Extinguishing System (CAFES)



Tactical Vehicle Armor Development (TVAD)



Ground Combat Vehicle Vision Protection



Transparent Armor Development



Ultra Light Vehicle (ULV)



Threat Oriented Survivability Optimization Model (TOSOM)



Warrior Injury Assessment Manikin (WIAMan)



Facilities

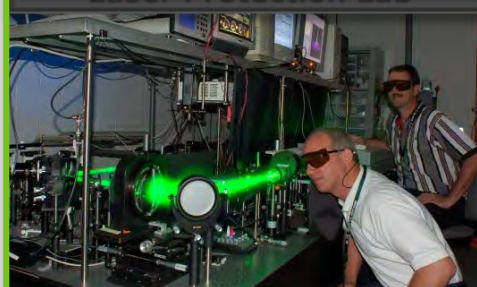
Robust – Unique



Laboratory Capabilities

- Laser Protection Lab
- Hit Avoidance Lab
- Sensor Enhanced Nondestructive Testing Lab
- Armor Development Lab
- Survivability Armor Ballistic Lab
- Fire Lab
- Occupant Protection Lab
- Grayling Experimental Range

Laser Protection Lab



Armor Development Lab



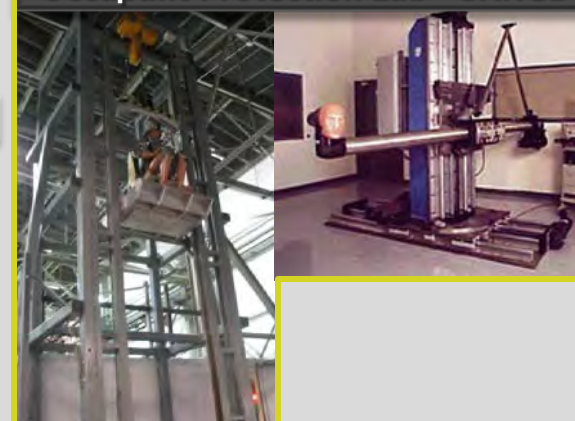
Hit Avoidance Lab - SANGB



Hit Avoidance Lab - Warren



Occupant Protection Lab - SANGB





Facilities

Robust – Unique



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- Grayling Experimental Range

Survivability Armor Ballistic Lab



Fire Lab SANGB



Building 1437

Sensor Enhanced Nondestructive Testing Lab



Grayling RPG Experimental Range

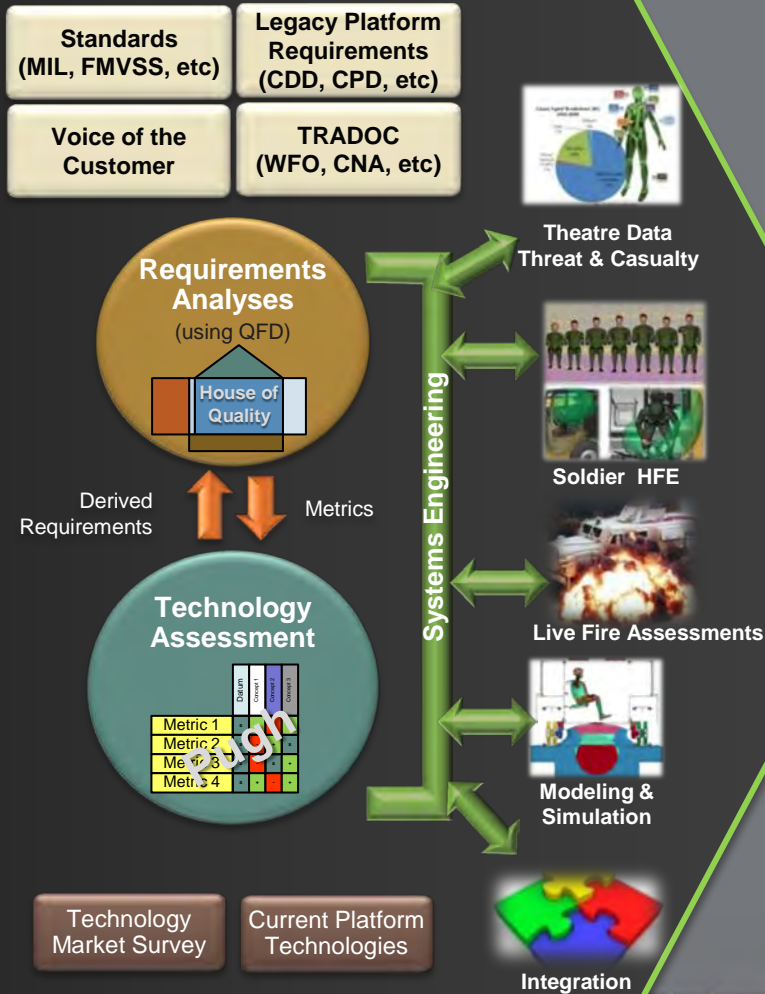


JAMES SCOTT 1/2012



Occupant Centric Platform

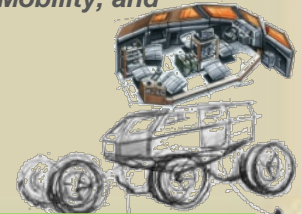
Approach to Execution



New Acquisition Programs

Technologies and know-how to optimize Force Protection, Crew Effectiveness, Mobility, and Transportability Req'ts:

- Cost-effective Acquisition
- Product Descriptions
- Efficient Trade Analysis
- Design Standards & Tools
- Test & Validation Methods



Occupant Centric Concept Demonstrator "CAMEL"

Occupant Centric Survivability for Military Ground Vehicle Design:

Publish overarching MIL-STD, design guidelines, technical specifications & Test Operations Procedures

Platform Specific Demonstrators (light & heavy)

Existing Platforms

Technologies and know-how to optimize Force Protection while maintaining mobility:

- Estimate capability gains with existing constraints
- Trade Analysis & SWaP-c
- Product Descriptions
- Design Standards & Tools



A grayscale photograph of three soldiers in a desert environment. Two soldiers are standing on the left, facing away from the camera, looking out over a valley. A third soldier is kneeling on the right, facing left, holding a rifle. The word "Questions?" is overlaid in the center of the image.

Questions?